Amendments to Claims

1. (Currently Amended.) A photoactive electronic device comprising:

(a) an anode;

(b) a cathode, said cathode having a work function energy level E_3;

(c) a photoactive layer positioned between said anode and said cathode, said photoactive layer comprising a cyclometalated complex of a transition metal, said cyclometalated complex having a LUMO energy level E_2 and a HOMO energy level E_4; and

(d) an electron transport and/or anti-quenching layer positioned between said cathode and said photoactive layer, said electron transport and/or anti-quenching layer having a LUMO energy level E_1 and a HOMO energy level E_5,

with the proviso that:

(1) $E_1 - E_3 < 1$eV,

(2) $E_1 - E_2 > -1$V0, and

(3) $E_4 - E_5 > -1$eV.

2. (Canceled)

3. (Original) The device of Claim 1 wherein $E_4 - E_5 > 0$.

4. (Currently Amended.) The device of Claim 1 wherein said electron transport and/or anti-quenching layer has an electron mobility of at least 10^{-7} $cm^2/(eV \cdot sec)$.

5. (Canceled)

6. (Canceled)

7. (Canceled)

8. (Canceled)

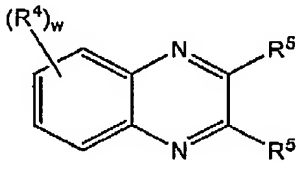
9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (Original) The device of Claim 1 wherein the electron transport and/or anti-quenching layer comprises a quinoxaline derivative.

13. (Previously Presented) The device of Claim 12 wherein the quinoxaline derivative has Formula V,



(V)

wherein:

R^4 and R^5 are the same or different at each occurrence and are selected from H, F, Cl, Br, alkyl, heteroalkyl, alkenyl, alkynyl, aryl, heteroaryl, alkylenearyl, alkenylaryl, alkynylaryl,

alkyleneheteroaryl, alkenylheteroaryl, alkynylheteroaryl, $C_nH_aF_b$, $OC_nH_aF_b$, $C_6H_cF_d$, and $OC_6H_cF_d$, or both of R^5 together may constitute an arylene or heteroarylene group;

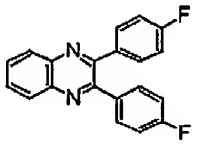
a, b, c, and d are 0 or an integer such that $a+b = 2n + 1$, and $c + d = 5$;

n is an integer; and

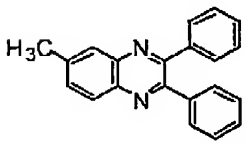
w is 0 or an integer from 1 through 4.

14. (Original) The device of Claim 13 wherein n is an integer from 1 through 12.

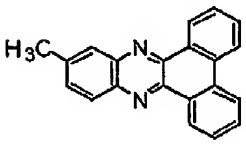
15. (Currently Amended) The device of Claim 12 wherein the quinoxaline derivative is selected from Formulae V(a), V(b), V(d) through V(i) and V(k) through V(ag).



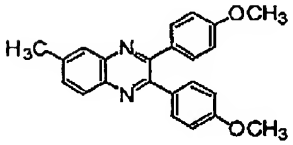
V(a)



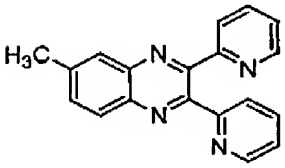
V(b)



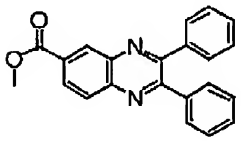
V(d)



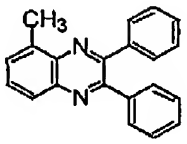
V(e)



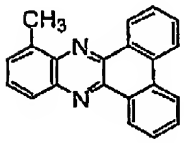
V(f)



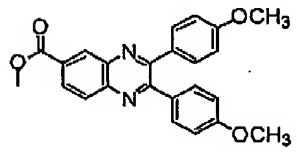
V(g)



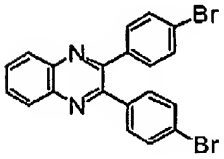
V(h)



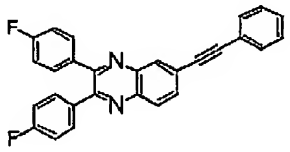
V(i)



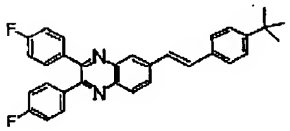
V(k)



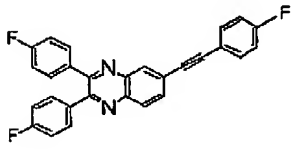
V(l)



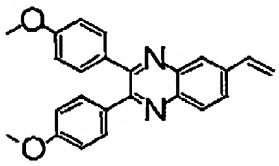
V(m)



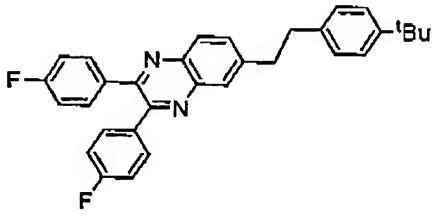
V(n)



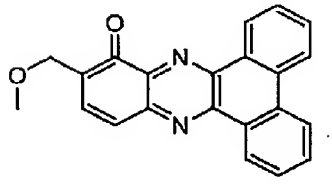
V(o)



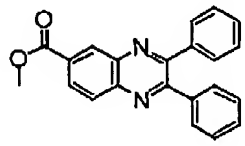
V(p)



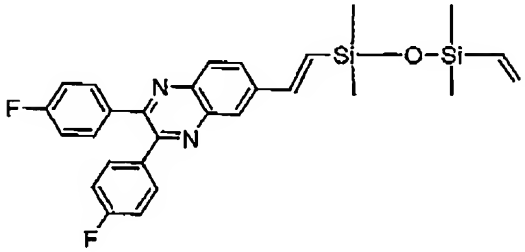
V(q)



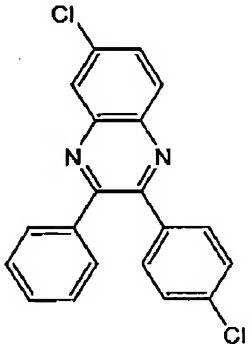
V(r)



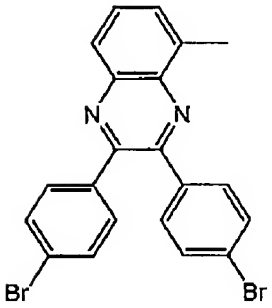
V(s)



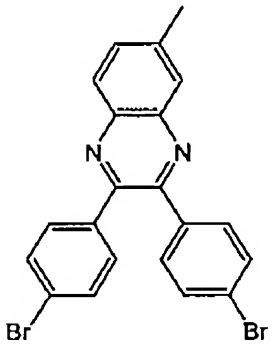
V(t)



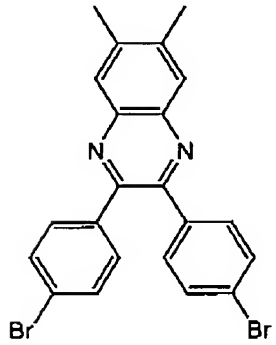
V(u)



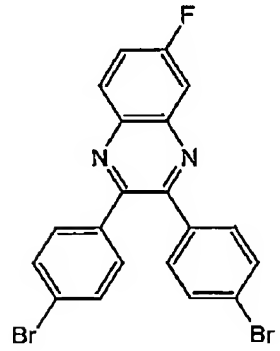
V(v)



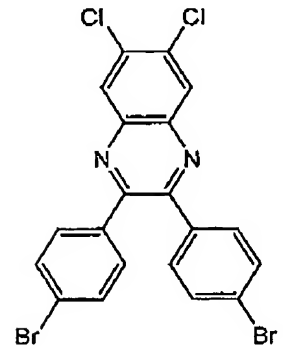
V(w)



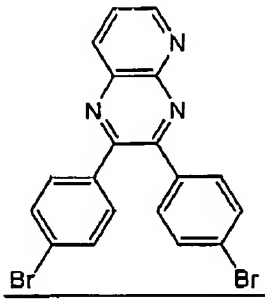
V(x)



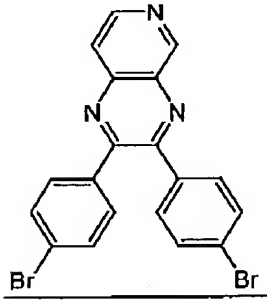
V(y)



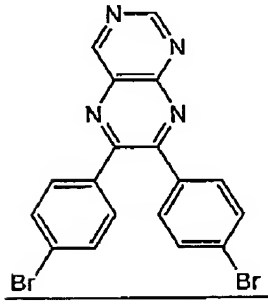
V(z)



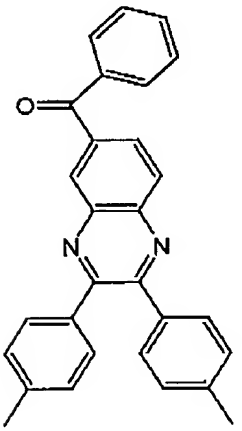
V(aa)



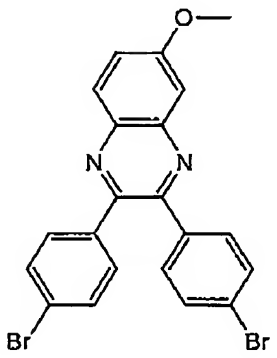
V(ab)



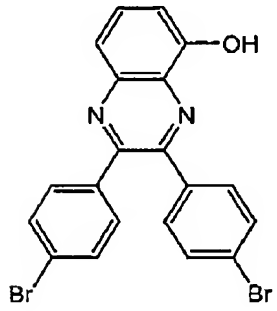
V(ac)



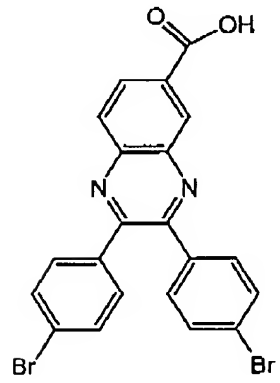
V(ad)



V(ae)



V(af)



V(ag)

16. (Canceled)
17. (Canceled)
18. (Canceled)
19. (Canceled)
20. (Canceled)
21. (Canceled)
22. (Canceled)
23. (Previously Presented) The device of any one of Claims 1-4 and 12-15, wherein the device is a light-emitting diode, a light-emitting electrochemical cell, or a photodetector.